BETHLEHEM STEEL COMPANY SHIPYARD, MACHINE SHOP (W. & A. Fletcher Company) 1201-1321 Hudson Street City of Hoboken Hudson County

New Jersey

HAER NJ 9-HOBO

HAER No. NJ-95-A

#### **PHOTOGRAPHS**

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
Northeast Region
Philadelphia Support Office
U.S. Custom House
200 Chestnut Street
Philadelphia, P.A. 19106

### HISTORIC AMERICAN ENGINEERING RECORD

# BETHLEHEM STEEL COMPANY SHIPYARD, MACHINE SHOP

(W. & A. Fletcher Company)

HAER No. NJ-95-A

Location:

1201-1321 Hudson Street

City of Hoboken

Hudson County, New Jersey

UTM: 18.582400.4511450

Quad: Weehawken, N.J.-N.Y., 1:24,000

Dates of Construction:

1890; 1906; 1944

Present Owner:

Shipyard Associates, L.P.

5 Marine View Plaza, Suite 500 Hoboken, New Jersey 07030

Present Use:

Vacant

Significance:

The Machine Shop is the most recognizable structure within the Bethlehem Steel Company Shipyard complex as a consequence of its siting on the yard's Hudson Street frontage. The oldest section of this structure was built as a machine shop by the W. & A. Fletcher Company during the initial development of the yard in 1890. This building was enlarged twice (in 1906 and 1944) and remained in use as a machine shop until the closing of the yard

in 1984.

Project Information:

The Machine Shop is the only building within the former shipyard that is to be retained and adaptively reused as part of a

planned redevelopment of the property.

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## History of the Bethlehem Steel Company Shipyard Machine Shop

The original section of the Machine Shop (the northern 200 feet of the present structure) was erected by the W. & A. Fletcher Company to serve as a machine shop in 1890. This building, along with the Blacksmith Shop/Boiler Shop, formed part of the central core of the company's new Hoboken shipbuilding facility (see Sanborn-Perris Map Company map of 1891 and W. & A. Fletcher Company North River Iron Works view of 1893 in Overview Section). As originally constructed the machine shop measured 200 feet by 70 feet with a drive in the far northern bay connecting Hudson Street with the interior of the yard. The building was capped by a monitor roof, and a rear wing (which included the office) extended from the east side of the main block into the yard.

In 1906 the Fletcher machine shop was expanded with the construction of an addition to the southern end of the original building that measured 76 feet by 70 feet (see Photograph of Tenney map and view of 1907 and G.M. Hopkins Company map of 1909 in Overview Section). At this time the building continued to house a variety of machining activities, with the ground floor and the timber frame second floor galleries lining the side walls providing space for numerous machinery types. This building remained essentially unchanged during the remainder of the W. & A. Fletcher Company tenure at the yard (see Photograph of Love map of 1919, G.M. Hopkins Company map of 1923, and Photograph of Cross map of 1925 in Overview Section) and during the term of occupancy of the United Dry Docks, Inc./United Shipyards, Inc. interests (see G.M. Hopkins Company map of 1934, Sanborn Map Company map of 1906 [Corrected to 1938], and Photograph of Hoboken Yard General Plan Prior to Lease by Bethlehem Steel Co. in 1938 map of 1945 in Overview Section).

The machine shop reached its present size with the construction of a second southern extension measuring 150 feet by 70 feet by the Bethlehem Steel Company Shipbuilding Division during the Second World War (see Photograph of Sanborn Map Company map of 1944 and Photograph of Hoboken Yard General Plan map of 1983 in Overview Section). It was also at this time that timber galleries were replaced by the present massive concrete galleries. The use of this structure remained essentially consistent throughout its history, with machine tools of varying types and sizes, including lathes, drill presses, and stamping machines, housed here until the closing of the yard (see Photograph of Hoboken Yard Machine Shop Gallery Floor Plan of 1980).

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### Description of the Bethlehem Steel Company Shipyard Machine Shop

The Machine Shop is a 2 1/2-story, 36-bay brick structure measuring approximately 425 feet by 70 feet in plan that is sited on and runs parallel to the east side of Hudson Street (see Photographs). The building is capped by a gabled roof with continuous skylights flanking a ventilation outlet in the peak. The only entrance at the west facade is a large door that occupies part of the two northern bays and is located within the larger former driveway that once allowed access to the yard -- this arched opening has been partially filled with brick. The south elevation has three large entries at ground level, of which the central opening is the largest (see Photograph). Three bays of multi-paned arched windows, a single smaller window, and a ventilation outlet occupy the second floor. The east elevation is similar to the west, although it exhibits a larger number of entrances of varying sizes at the ground floor level that provide the necessary connections between the building and the remainder of the yard (see Photograph). The rear addition that formerly projected from the northern end of this facade has been demolished, leaving a large hole at this end of the main block (see Photograph). The north elevation was altered as a result of -- and is largely obscured by -- more recent additions (see Photograph). Windows and doors throughout the building typically feature arched brick lintels, stone or concrete sills, and multiple panes of glass (see Photograph).

The machine shop is open along its entire length and to its full height on the interior (see Photographs). The structure's masonry walls support an extensive timber roof truss, and the interior is provided with light by both the skylights within the roof and by the numerous window openings in the first and second floors. The dominant interior features are the two massive second story galleries constructed of reinforced concrete that extend along both side walls for the entire length of the building (see Photographs). These galleries and the entire first floor were formerly utilized to provide space for a variety of machine tools -- no machinery remains in the building today.

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### Sources of Information/Bibliography

#### **Engineering Drawings**

- "Hoboken Yard General Plan." Hoboken: Hoboken Shipyards, Inc., 1983.
- "Hoboken Yard General Plan Prior to Lease by Bethlehem Steel Co. in 1938." Hoboken: Bethlehem Steel Company Shipbuilding Division, 1945.
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#### Historic Views

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- G.M. Hopkins Company. Atlas of Hudson County. Vol. 2. Philadelphia: G.M. Hopkins Company, 1909.
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- "W. & A. Fletcher Company North River Iron Works." In *The Evening News and Hoboken*. Hoboken: The Hoboken Evening News, 1893.

#### <u>Interviews</u>

LaRocca, Joseph Sr. (Naval Architect - Bethlehem Steel Company Shipyard, 1953-1982). Telephone conversation, 6 May 1994.

# Primary and Unpublished Sources

Bethlehem Steel Company File. Bethlehem Public Library, Bethlehem, Pennsylvania.

W. & A. Fletcher Collection. South Street Seaport Museum, New York, New York.